

Introduction

Thank you for choosing the Wireless-B Broadband Router. This Router will allow you to set up a network with your PCs and even share your Internet connection.

How does the Router do all of this? By connecting your cable or DSL modem directly to the Router and using the Router's Ethernet ports to connect your PCs, it's almost as if each PC is connected directly to the Internet. In this way, you can have several PCs utilizing one Internet connection simultaneously. Plus, because it's also an Access Point, the Router can bridge your Ethernet network with your wireless PCs.

But what does all of this mean?

Networks are useful tools for sharing computer resources. You can access one printer from different computers and access data located on another computer's hard drive. Networks are even used for playing multiplayer video games. So, networks are not only useful in homes and offices, they can also be fun.

The PCs you connect to the Router's four LAN ports, when properly configured, create a LAN, or Local Area Network. They are connected with an Ethernet cable plugged into your computer's Ethernet adapter at one end and into one of the Router's LAN ports (numbered from one to four) at the other end. The term "Ethernet" is used to refer to your network accessories, such as cables and adapters, because Ethernet refers to the type of network you are setting up. In your Router's documentation, Ethernet refers to accessories that transfer computer data from 10Mbps to 100Mbps. (10Mbps and 100Mbps refer to the speeds used by network devices. When transferring data at 10Mbps, you are moving the equivalent of over seven floppy disks every second! Network accessories that function at 100Mbps move data ten times faster!)

PCs can also interact with the Router wirelessly. By configuring your wireless PCs with the same wireless settings as the Router, you can bridge these wireless PCs while integrating them into your existing Ethernet network.

Perhaps the most remarkable thing the Router does is to allow you to share your cable or DSL connection. This is done by connecting your cable or DSL modem to the Router's Internet port with an Ethernet cable. The Internet is a network that, being global, covers the widest area of all! The PCs connected to the Router share this connection.

Use the instructions in this Fast Start to help you connect the Router, configure your PCs, and configure the Router in your network. These instructions should be all you need to get you up and running with a basic network, sharing your Internet access. The Router also comes equipped with more advanced functions, but these functions should not be utilized without a further understanding of routers and networks. These and other issues are explained in the User Guide on the Setup Wizard CD-ROM.

Introduction

Fast Start

Wireless-B Broadband Router

If you are doing a brand new setup, please use the Fast Start guide to get you up and running quickly!

Broadband Networking
www.linksys.com



If you are running:
Windows 2000

- The following instructions assume you are running Windows XP's default interface. If you are using the Classic interface (where the icons and menus look like previous Windows versions), please follow the instructions for Windows 2000.
- A. Click the **Start** button, open the **Control Panel**, and click the **Network and Internet Connections** icon to display the **Network Connections** screen.
 - B. Select the **Local Area Connection** icon for the applicable Ethernet adapter (usually it is the first **Local Area Connection** listed). Double-click the **Properties** button, and click the **Internet Protocol (TCP/IP)** and click the **Properties** button.
 - C. Select **Internet Protocol (TCP/IP)** and click the **Obtain an IP address automatically** button on the subsequent screens to complete the PC's configuration.
 - D. Restart your computer.



Configure PCs

If you are running:
Windows 95, Windows 98, Windows Millennium

- A. Click the **Start** button, click **Settings** and open the **Network** icon to open the **Network screen**.
 - B. Select the **Configuration** tab and highlight the **TCP/IP** line for the applicable Ethernet adapter. If the word **TCP/IP** appears by itself, select that line. Then, click the **Properties** button.
 - C. Click the **IP Address** tab and select **Obtain an IP address automatically**.
 - D. Click the **Gateway** tab and verify that the installed gateway field is blank. Click the **OK** button.
 - E. Click the **OK** button again. Windows may ask you for the original Windows installation disk or additional files. Supply them by pointing to the correct file location, e.g., D:\win98, D:\win9x, c:\windows\option\cab, etc. (This assumes that "D" is the letter of your CD-ROM drive).
 - F. If Windows asks you to restart your PC, click the **Yes** button. If Windows does not ask you to restart, restart your computer anyway.
- Note: Do not choose a TCP/IP entry whose name mentions DUN, PPPoE, VPN, or AOL. **Note: If there is no TCP/IP line listed, refer to the User Guide found on the Setup Wizard CD-ROM or your Ethernet adapter's documentation to install TCP/IP now.



Configure PCs

- A. Click the **Start** button, click **Settings** and open the **Network and Dial-up Connections** icon. This will display the **Network screen**.
- B. Select the **Local Area Connection** icon for the applicable Ethernet adapter (usually it is the first **Local Area Connection** listed). Double-click the **Properties** button, and click the **Internet Protocol (TCP/IP)** and click the **Obtain an IP address automatically** button on the subsequent screens to complete the PC's configuration.
- C. Select **Internet Protocol (TCP/IP)** and click the **Properties** button.
- D. Restart your computer.



Configure PCs

Step 2: Configure the PCs



To do this, you will need to configure your PC's network settings to obtain an IP (or TCP/IP) address automatically. Computers use IP addresses to communicate with each other across a network or the Internet.

Find out which operating system your computer is running, such as Windows 95, 98, Millennium, 2000, or XP. You will need to know which operating system your computer is running. You can find out by clicking the **Start** button and then selecting the **Settings** option. (If your Start menu doesn't have a Settings option, you're running Windows XP. You can select the Control Panel directly from the Start Menu.) Then, click **Control Panel** and double-click the **System** icon. Click the **Cancel** button when done.

Once you know which Windows operating system you are running, follow the directions in this step for your computer's operating system you are using. Once you've configured your computers, continue to Step 3: Configure the Router.

The next few pages tell you, step by step, how to configure your TCP/IP settings based on the type of Windows operating system you are using.

Step 1: Connect the Router



This is What You Will Be Setting Up

The Router's setup is similar to that shown in the figure above for any Windows PC. The Router lets you share your cable or DSL connection among several computers in your home or business. This is called a Local Area Network or LAN.

This Fast Start guide gives you the "big picture" of what you need to set up a basic home or business network. The next three sections explain how you will set up and configure your equipment to enable shared high-speed access to the Internet.

Step 1: Connect the Router

This walks you through the process of connecting the Router to your cable or DSL modem. Then, it shows you how your PCs are connected to the Router.

Step 2: Configure the PCs

This describes how your PCs are configured to communicate with the Router.

Step 3: Configure the Router

This step walks you through some basic Router settings, making it work with your cable or DSL modem and your ISP's settings.



Note: This Fast Start guide will direct you how to set up the Router with Ethernet cables. While the Router can be set up through a wireless connection, details about setting up the Router wirelessly will not be addressed in this Fast Start guide. Those who wish to set up the Router through their wireless connection should refer to the Setup Utility or in the User Guide located on the Setup Wizard CD.

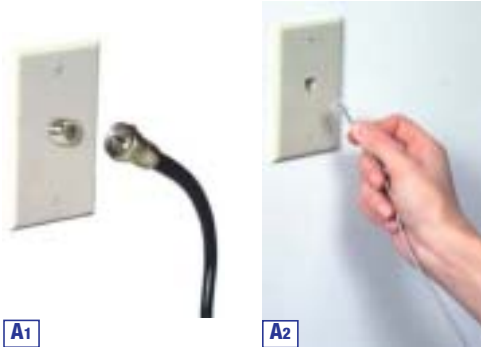
Introduction



In Step 1, you will connect the Router to your cable or DSL modem and to your home or business computers.

First, make sure that all devices you'll be working with are powered down, including your PCs, modem, and the Router.

- A. If you haven't already done so, connect your cable or DSL modem to its proper connection—the coaxial jack for cable (Figure A1), or the phone jack for DSL (Figure A2). (Follow the instructions from your cable or DSL modem's installation guide.)



A1

A2

Connect Router

- B. Using an Ethernet cable, connect the LAN or Ethernet port of the cable or DSL modem to the Router's Internet port.



B

- C. Connect an Ethernet cable to your PC's Ethernet adapter. Connect the other end of the cable to one of the Router's Ethernet ports (1-4). Repeat this process for every PC you wish to connect to the Router.

Note: If your PC's Ethernet adapter is not set up, please refer to the Ethernet adapter's documentation for more information.



C1

Connect Router

- D. Connect the power adapter to the Router's Power port. Then, connect the power adapter to an electrical outlet. Turn on the cable or DSL modem. Then turn on the first PC you wish to use when configuring the Router.

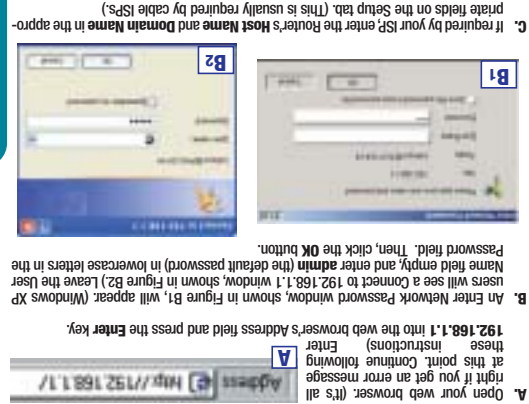


C2

Proceed to Step 2: Configure the PCs on the next page.

Connect Router

Step 3: Configure the Router



- A. Open your web browser. It's all right if you get an error message at this point. Continue following these instructions) Enter **192.168.1.1** into the web browser's Address field and press the **Enter** key.
- B. An Enter Network Password window, shown in Figure B1, will appear. Windows XP users will see a Connect to 192.168.1.1 window, shown in Figure B2.) Leave the User Name field empty, and enter **admin** (the default password) in lowercase letters in the Password field. Then, click the **OK** button.
- C. If required by your ISP, enter the Router's **Host Name and Domain Name** in the appropriate fields on the Setup tab. (This is usually required by cable ISPs.)

The instructions from your ISP tell you how to set up your PC for Internet access. Since you are now using the Router to share Internet access among several computers, you will use this setup information for Router configuration.

In Step 3, you will configure the Router to function in your network and gain access to the Internet through your Internet Service Provider (ISP). Your ISP may require the use of a Host Name and Domain Name. Further, you will set the Internet Configuration Type on the Router's Setup tab from the information given by your ISP. *You will need this setup information from your ISP?* If you do not have this information, please contact your ISP before proceeding to find out what questions you should ask your ISP; refer to question #1 in the Help section.



Setup tab's Wireless fields (shown in Figure D) are completed as follows:

- D. To configure the Router for your wireless network, verify that the Setup tab's Wireless fields (shown in Figure D) are completed as follows:
- Enable/Disable:** Selecting the wireless radio button will enable the Router's wireless feature. Wireless functions will not be available unless enabled.
 - SSID:** The SSID (or ESSID) is a unique name for your wireless network. It is case sensitive and must not exceed 32 characters. The default SSID is "linksys" but you should change this to a personal Wireless network name. All wireless points in your network must use the same SSID.
 - Channel:** Select the appropriate channel for your network from the list provided. All wireless points in your network must use the same channel in order to function properly.
- E. The Router supports five connection types: DHCP (obtain an IP automatically), PPPoE, Static IP Address, RAS, and PPTP. These types are selected from the pull-down menu beside **Internet Connection Type**. The Setup screen and available instructions for which are included here:
- F. Click the **Apply** button to save the settings.
- G. Now you will configure some settings in Windows.
- H. Check **Never Dial Up a Connection**.
- I. Click the **Apply** button.
- J. Click the **OK** button.

6. I get no signal strength or link quality or signal strength, what can I do?
- A. Verify that the Router's Wireless-B LED is illuminated.
- B. Verify that all of your wireless PCs are using "Infrastructure" mode.

7. How can I improve the Router's range?
- A. Verify that the Router is as high off of the ground as possible.
- B. Verify that there are no large sources of electrical interference nearby. (For example: speakers breaker boxes, florescent lights, microwaves, etc.)
- C. Change the wireless channel being used. To do this:

- Open your web browser and type **http://192.168.1.1** into the "Address" field.
- In the "Enter Network Password" box, leave the "User Name" field blank and type **admin** as the password. Then, click **OK**.
- From the Setup tab, change the channel to **1**.
- Click the **Apply** button to save the settings.
- Continue doing this until you find the channel that provides the best range.

8. I tried the suggestions above and still cannot get access to the Internet from my Router. What can I do?

You can refer to the Troubleshooting appendix of the User Guide on the Setup Wizard CD-ROM, or you can get additional assistance through one of the resources listed below.

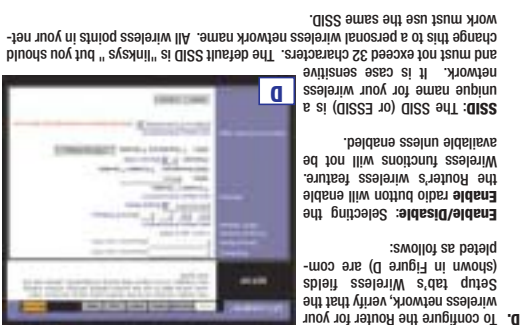
Technical Support Email Support Website	800-326-7114 (toll free from U.S. or Canada) support@linksys.com http://www.linksys.com or http://support.linksys.com
FTP Site Sales Information	ftp://ftp.linksys.com 800-546-5797 (800-LINKSYS)

1. Obtain an IP Automatically
- If your ISP says that you are connecting through a dynamic IP address (or DHCP), perform these steps:
- Select **Obtain an IP automatically** as the Internet Connection Type (as previously shown in Figure D).
 - Click the **Apply** button to save the settings.
2. Static IP
- If your ISP says that you are connecting through a static (or fixed) IP address, perform these steps:
- Select **Static IP** as the Internet Connection Type.
 - In the fields beside "Specify Internet IP Address", enter the IP Address.
 - Enter the **Subnet Mask**.
 - Enter the **Default Gateway** Address.
 - Enter the **DNS** in the 1, 2, and/or 3 fields. You must enter at least one DNS address.
3. PPPoE
- If your DSL provider says that you are connecting through PPPoE or if you normally enter a user name and password to access the Internet, perform these steps:
- Select **PPPoE** as the Internet Connection Type.
 - Enter the **User Name**.
 - Enter the **Password**.
 - Click the **Apply** button to save the settings.
 - Click the **Status** tab, followed by the **Connect** button, to start the connection.

Do not change the WEP setting from the default, "Disabled", without first referring to the Wireless Security sections of the User Guide or Setup Wizard CD-ROM for advanced features and settings.

The Router supports five connection types: DHCP (obtain an IP automatically), PPPoE, Static IP Address, RAS, and PPTP. These types are selected from the pull-down menu beside **Internet Connection Type**. The Setup screen and available instructions for which are included here:

E. The Router supports five connection types: DHCP (obtain an IP automatically), PPPoE, Static IP Address, RAS, and PPTP. These types are selected from the pull-down menu beside **Internet Connection Type**. The Setup screen and available instructions for which are included here:



- D. To configure the Router for your wireless network, verify that the Setup tab's Wireless fields (shown in Figure D) are completed as follows:
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- F. Click the **Apply** button to save the settings.
- G. Now you will configure some settings in Windows.
- H. Check **Never Dial Up a Connection**.
- I. Click the **Apply** button.
- J. Click the **OK** button.

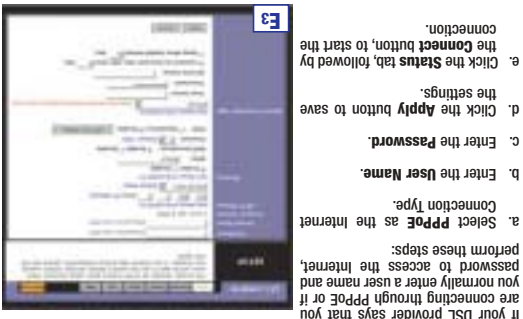
6. I get no signal strength or link quality or signal strength, what can I do?
- A. Verify that the Router's Wireless-B LED is illuminated.
- B. Verify that all of your wireless PCs are using "Infrastructure" mode.
7. How can I improve the Router's range?
- A. Verify that the Router is as high off of the ground as possible.
- B. Verify that there are no large sources of electrical interference nearby. (For example: speakers breaker boxes, florescent lights, microwaves, etc.)
- C. Change the wireless channel being used. To do this:
- Open your web browser and type **http://192.168.1.1** into the "Address" field.
 - In the "Enter Network Password" box, leave the "User Name" field blank and type **admin** as the password. Then, click **OK**.
 - From the Setup tab, change the channel to **1**.
 - Click the **Apply** button to save the settings.
 - Continue doing this until you find the channel that provides the best range.

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You can refer to the Troubleshooting appendix of the User Guide on the Setup Wizard CD-ROM, or you can get additional assistance through one of the resources listed below.

Technical Support Email Support Website	800-326-7114 (toll free from U.S. or Canada) support@linksys.com http://www.linksys.com or http://support.linksys.com
FTP Site Sales Information	ftp://ftp.linksys.com 800-546-5797 (800-LINKSYS)

5. When I use Internet Explorer, a box pops up prompting me to dial up a connection. How can I disable that?
- A. Go to your desktop and double-click **My Computer**, and then double-click **Control Panel** (Windows XP users using the default interface, click **Start**, and then select **Control Panel**).
- B. When the Control Panel window pops up, double-click the **Internet Options** icon (Windows XP users using the default interface, click **Network and Internet Connections**, and then click **Internet Options**).
- C. When the Internet Options window appears, click the **Connections** tab.



2. Static IP
- If your ISP says that you are connecting through a static (or fixed) IP address, perform these steps:
- Select **Static IP** as the Internet Connection Type.
 - In the fields beside "Specify Internet IP Address", enter the IP Address.
 - Enter the **Subnet Mask**.
 - Enter the **Default Gateway** Address.
 - Enter the **DNS** in the 1, 2, and/or 3 fields. You must enter at least one DNS address.
3. PPPoE
- If your DSL provider says that you are connecting through PPPoE or if you normally enter a user name and password to access the Internet, perform these steps:
- Select **PPPoE** as the Internet Connection Type.
 - Enter the **User Name**.
 - Enter the **Password**.
 - Click the **Apply** button to save the settings.
 - Click the **Status** tab, followed by the **Connect** button, to start the connection.

- D. To configure the Router for your wireless network, verify that the Setup tab's Wireless fields (shown in Figure D) are completed as follows:
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- F. Click the **Apply** button to save the settings.
- G. Now you will configure some settings in Windows.
- H. Check **Never Dial Up a Connection**.
- I. Click the **Apply** button.
- J. Click the **OK** button.

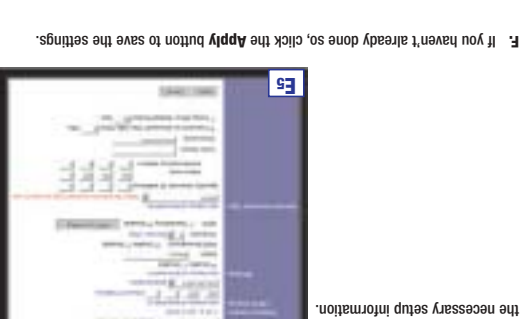
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- A. Verify that the Router is as high off of the ground as possible.
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- C. Change the wireless channel being used. To do this:
- Open your web browser and type **http://192.168.1.1** into the "Address" field.
 - In the "Enter Network Password" box, leave the "User Name" field blank and type **admin** as the password. Then, click **OK**.
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 - Click the **Apply** button to save the settings.
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- A. Go to your desktop and double-click **My Computer**, and then double-click **Control Panel** (Windows XP users using the default interface, click **Start**, and then select **Control Panel**).
- B. When the Control Panel window pops up, double-click the **Internet Options** icon (Windows XP users using the default interface, click **Network and Internet Connections**, and then click **Internet Options**).
- C. When the Internet Options window appears, click the **Connections** tab.



4. RAS
- RAS is a service used in Singapore only. If you are using an ISP for the necessary setup information, check with your ISP for the necessary setup information.
5. PPTP
- PPTP is a service used in Europe only. If you are using a PPTP connection, check with your ISP for the necessary setup information.

- D. To configure the Router for your wireless network, verify that the Setup tab's Wireless fields (shown in Figure D) are completed as follows:
- Enable/Disable:** Selecting the wireless radio button will enable the Router's wireless feature. Wireless functions will not be available unless enabled.
 - SSID:** The SSID (or ESSID) is a unique name for your wireless network. It is case sensitive and must not exceed 32 characters. The default SSID is "linksys" but you should change this to a personal Wireless network name. All wireless points in your network must use the same SSID.
 - Channel:** Select the appropriate channel for your network from the list provided. All wireless points in your network must use the same channel in order to function properly.
- E. The Router supports five connection types: DHCP (obtain an IP automatically), PPPoE, Static IP Address, RAS, and PPTP. These types are selected from the pull-down menu beside **Internet Connection Type**. The Setup screen and available instructions for which are included here:
- F. Click the **Apply** button to save the settings.
- G. Now you will configure some settings in Windows.
- H. Check **Never Dial Up a Connection**.
- I. Click the **Apply** button.
- J. Click the **OK** button.

If you have this type of connection:	Perform these steps:
Dynamic IP Address (DHCP)	1. Select Obtain an IP automatically as the Internet Connection Type. 2. Click the Apply button to save the setting.
Static IP Address	1. Select Static IP as the Internet Connection Type. 2. Enter the IP Address . 3. Enter the Subnet Mask . 4. Enter the Gateway Address . 5. Enter the DNS in the 1, 2, and/or 3 fields. You need to enter at least one DNS address. 6. Click the Apply button to save the settings.
PPPoE	1. Select PPPoE as the Internet Connection Type. 2. Enter the User Name . 3. Enter the Password . 4. Click the Apply button to save the settings.
RAS or PPTP	If you are using RAS (Singapore SingTel) or PPTP (service in Europe), check with your ISP for the necessary setup information.

2. I'm having problems connecting to the Internet, what LEDs should be lit on the front of the Router?

- Each Router's LED will light up for any proper connection made on the back of the Router—whether it is an Ethernet cable or power cord.

For example, the following are typical LEDs that light up once a computer and a cable or DSL modem are connected:

- When the Router is turned on (the power adapter is plugged into the Router), the **Power** LED lights up.
- When an Ethernet cable is properly connected between a PC and Port 1, 2, 3, or 4 of the Router, the LED in the corresponding Column lights up.
- A cable or DSL modem connection causes the **Internet** LED to light up.
- A wireless connection causes the **Wireless-B** LED to light up.

6. I get no signal strength or link quality or signal strength, what can I do?
- A. Verify that the Router's Wireless-B LED is illuminated.
- B. Verify that all of your wireless PCs are using "Infrastructure" mode.
7. How can I improve the Router's range?
- A. Verify that the Router is as high off of the ground as possible.
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- C. Change the wireless channel being used. To do this:
- Open your web browser and type **http://192.168.1.1** into the "Address" field.
 - In the "Enter Network Password" box, leave the "User Name" field blank and type **admin** as the password. Then, click **OK**.
 - From the Setup tab, change the channel to **1**.
 - Click the **Apply** button to save the settings.
 - Continue doing this until you find the channel that provides the best range.

8. I tried the suggestions above and still cannot get access to the Internet from my Router. What can I do?

Help



The Help section contains the most frequently asked Internet connection questions. If you have additional setup needs or you wish to get information on the Advanced Features, please visit kb.linksys.com or see the User Guide, which contains a Troubleshooting appendix (available on the Setup Wizard CD-ROM).

1. I'm not sure what information I need from my Internet Service Provider (ISP) to get my network up and running. What questions should I ask?

What type of connection do I have: dynamic IP address, static IP address, or PPPoE?

- If I am using a dynamic IP address, I should ask:
 - What is my Host Name (if needed)?
 - What is my Domain Name (if needed)?
- If I am using a static IP address, I should ask:
 - What is my IP Address?
 - What is my Gateway?
 - What is my DNS?
- If I am using PPPoE (typically used by DSL ISPs), I should ask:
 - What is my User Name?
 - What is my Password?

After you obtain the information, follow the instructions in the Fast Start - Step 3: Configure the Router, and use this information to enter on the Setup tab. In the Internet Connection Type section, refer to the chart on the next page:

Help

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